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New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233- 4253

Thomas C. Jorling
Commissioner

December 29, 1987

Mr. Mel J. Weiss
United States Department of Agriculture
Forest Service
Northeastern Area, State and Private Forestry
P.O. Box 640
Durham, NH 03824

Dear Mel:

Our worksheets and maps on forest health conditions are enclosed. In addition, we have provided in this letter information on statewide and regional problems to supplement the worksheets and maps.

Statewide Problems

There are nine problems described on the worksheets of which five problems are significant. These are chestnut blight, beech bark disease, Dutch elm disease, ash yellows and oak decline. These are significant problems because they are of long duration, affect major tree species and are likely to continue to kill large numbers of trees throughout the state for many years to come.

Another statewide problem, but not as noticeable or life threatening to trees is the sugar maple borer. This problem is important because it lowers sawlog grades.

Three other problems, that are statewide in distribution, but of lessor significance are black knot of cherry, aphids and white pine blister rust. The aphid problem is cyclical and at high levels in 1987. Black knots of cherry is greatly underestimated, for infections on many sites prevent black cherry from competing with other species. Lastly, white pine blister rust kills numerous eastern white pine. The Department prohibits the planting of black currants.

We plan to change our regulations to permit the planting of white pine blister rust resistant black currants.

Forest Health Problems of Unknown Causes

Some tree mortality cannot be related to a specific cause or combination of causes. Unknown causes of forest decline we have identified in 1987 include new and old problems. We will start with the newly described declines - both in spruce. Norway spruce decline, on a very tiny acreage was observed for the first time in 1987. Future examinations may reveal the cause of the decline and if it is increasing.

Presently, the decline killed 50 Norway spruce on a good site where hundreds of spruce grow. The other decline occurs in white spruce. We believe, that slow growing white spruce on wet sites are vulnerable to bark beetles. Heaviest declines are on thinned stands. Thinning residues may provide beetle breeding habitats and contribute to the problem.

The other three forest declines are of long duration. They are tamarack, yellow birch and maple declines. The tamarack and yellow birch declines are most severe in older trees or, in the case of yellow birch decline, occur on disturbed sites where American beech and red spruce have declined or logging occurred. Maple declines appear on wet sites, where cattle graze and on stands defoliated. These maple declines do not include those occurring from soil salt and soil compaction near roadways.

Regional Reports

We report on those forest health problems that are new or changing in a significant way or have the potential to cause significant impacts in the future. Impacts include losses of existing species or the discontinuation of planting of certain species due to problems in their survival or appearance.

Catskill-Lower Hudson, Capitol District

Japanese black pine decline has dramatically increased. Caused by at least three organisms, the pine woods nematode, black turpentine beetle and blue-stain fungi, it has killed 20 percent of the Japanese black pine on Long Island. The Department plans to discontinue shipments of this species from its tree nurser

Red pine scale, which has devastated red pine east of the Hudson River from mid Dutchess County southward, has now been found on the westside of the river at Harriman, along the New York State Thruway. It is predicted that the scale will destroy several large red pine plantations in the Harriman area within the next 5 years.

Hemlock adelgid and spider mites are killing eastern hemlock in Westchester County.

The remaining three pests - pear thrips, maple leaf cutter and cottony maple scale are of local importance and have caused tree damage in the region in recent years.

We think the most destructive problem in 1987 occurred as a result of an early snow storm in October. Before the deciduous trees dropped their leaves, a wet, heavy snow fell on a large region of the Capitol District, southward to the lower Catskill Hudson Region with the exception of Long Island and Orange, Rockland, Westchester, New York City and Putnam Counties. Wet snows bent and broke limbs and trees off. In some forests, such as in Rensselaer and Dutchess Counties, nearly every tree was damaged with wounds typically 3 or more inches in size. The great damage that occurred as a result of this storm will produce rots and future breakage. The storm caused more damage than any other storm in New York since the 1960's.

Adirondack Region

Scleroderris canker disease continues at a low level. It was a major tree disease in 10 Adirondack counties in the 1970's.

Pine false webworm has been a chronic problem in St. Lawrence County where it is killing red, scotch and white pines. In 1986, we learned that another epidemic of this insect occurs in Schoharie County. An infested 26 acre red pine stand in the latter county was cut to salvage dying trees.

A problem which also occurs outside of the Adirondacks, but was only reported in the Adirondacks in 1987 is thin crowns of black cherry. Loss of 80 percent of the foliage have been observed. Based on pre - 1987 information, the leaf loss is the result of an insect borer - probably a weevil, which bores into the leaf petiole. Damage is variable and much less in 1987 than 1986.

Fomes root rot is widely distributed in New York, but only reported in 1987 in the Adirondacks. Fomes infections may increase as more red pine stands are harvested.

Other problems discussed in the worksheets are oystershell scale; spruce and balsam fir declines; larch, European and red headed pine sawflies; balsam woolly aphid and hemlock dieback. The latter dieback is believed to be caused by spider mites.

Lake Plain, Southwest and South Central Highlands Region

There are two forest health problems in this region that are not discussed elsewhere in this letter. These are maple and ash declines on flood plains and red pine decline. In recent years large areas of flood plains have had standing water during the growing season. This water has inundated tree roots where maples and ash abound. Reasons for the high water tables are unknown.

Red pine decline is not new, but it is growing in areas and severity. There are two types of declines recognized by the symptoms they cause and the site history where they grow. Red pine on wet sites are declining. Trees have tufted foliage and loss their older needles prematurely. Needle color turns pale green. The other decline, more serious in our judgement, is top dieback decline. Declines occur on soils that are heavy in clays and shallow. Declining trees are typically 50 or more years old and have slow radial growth after age 35. Decline symptoms are widespread and increasing. Trees die from the top downwards. Blue-stain fungus follows roundheaded borer attacks. Pines die within a year or two singly or in small groups throughout the stand. Mortality exceeds growth on many older stands.

Sincerely yours,

Daniel W. Weller, Chief
Bureau of Forest Resource Management

Enc.

UNITED STATES Department of Agriculture

Forest Service

Northeastern Area, State and Private Forestry
Louis C. Wyman Forestry Sciences Laboratory
P.O. Box 640, Durham, NH 03824

Reply to: 3400

Date: November 23, 1987

FPM State Cooperators

We will soon be compiling forest insect and disease information for the 1987 annual conditions report. Please provide your input to our office by December 21. If present in your state, we would like you to include information on the following:

1) Insects: Gypsy moth, spruce budworm, Bruce spanworm, fall cankerworm, forest tent caterpillar, saddled prominent, Saratoga spittlebug, conifer sawflies, red pine scale, adelgids, oak leaf tier, regeneration insects, browntail moth, spruce beetle, Hemlock wooly adelgid, and pear thrips.

2) Diseases: Scleroderris canker, beech bark disease, diplodia tip blight, important foliage diseases, nursery problems, significant root diseases, European larch canker, air pollution damage such as ozone injury to white pine, and weather damage.

3) Like last year, we are particularly interested in information on declines, including ash, oak, spruce, fir, larch, birch and maple. If possible, provide a map, acres affected and description of symptoms. Also include results of any special surveys conducted to determine forest health.

4) Please include any other insects or diseases that have been of particular concern in your State in the past year and indicate which forest pests caused the most significant impact in your state this year.

5) We are also very interested in obtaining any loss assessment and population monitoring information you or others may have gathered. Reports on areas of tree mortality from current or past outbreaks are very helpful. Other information might include acres of salvage or actual monetary losses.

A form and map are enclosed for your use in reporting. Maps should show the specific area affected, not the whole county. (Gypsy moth defoliation maps have already been received from the States for this year and need not be included. However, please fill out a reporting sheet for gypsy moth describing trends, control projects, and losses.) We greatly appreciate your help. If you have any questions, please contact Margaret Miller-Weeks of this office.

NJY

In addition to meeting national reporting needs, we are planning to prepare a summary of insect and disease trends in New England and New York. We hope to have this summary ready for you by February.

Sincerely,

Mel

MELVYN J. WEISS
Field Representative
Forest Pest Management

Enclosures: 2

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME):

(SPECIFIC NAME):

HOST:

PRESENT CONDITION:

AREA - TOTAL ACRES:

LOCATION:

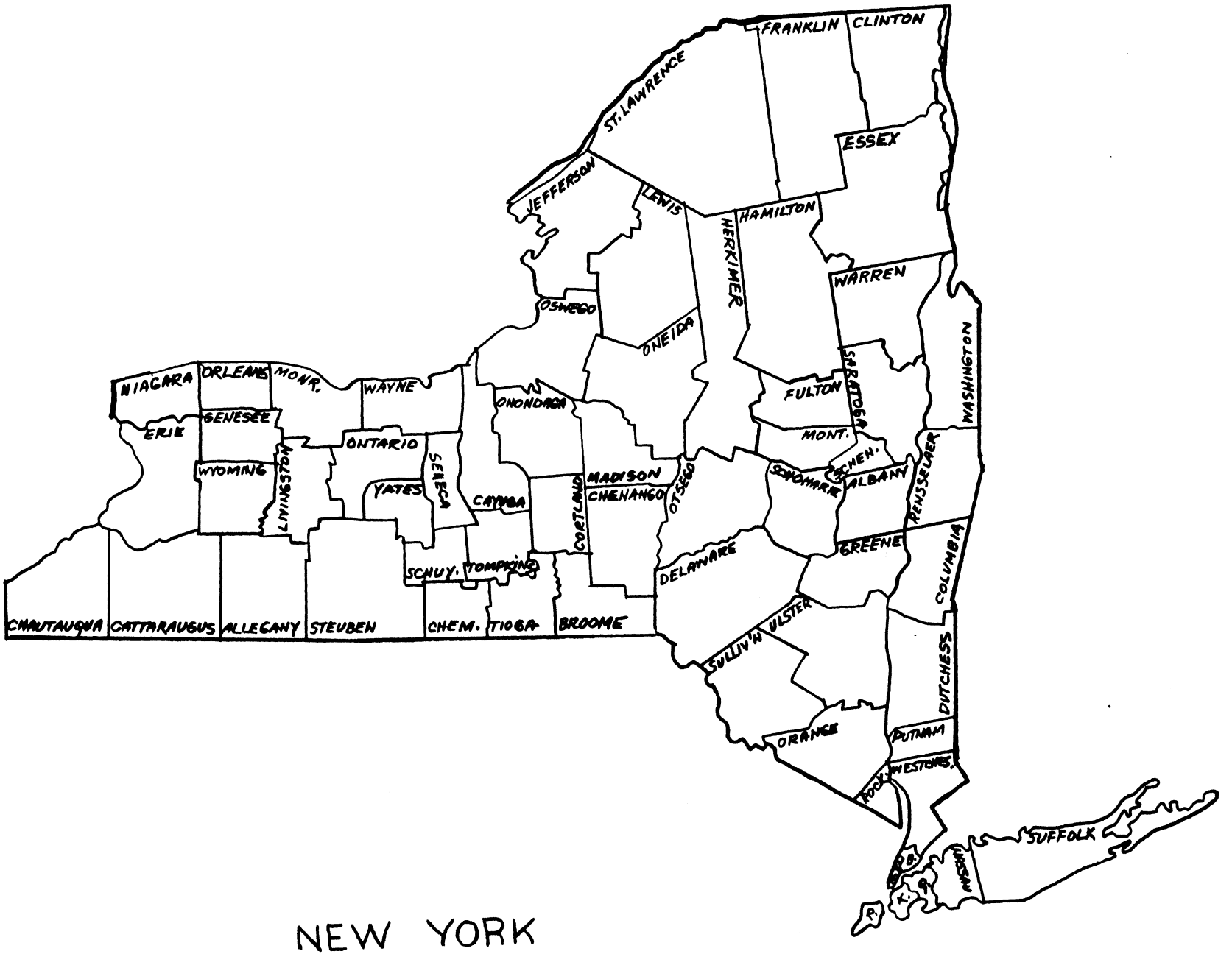
SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

ADDITIONAL COMMENTS:


FRANKLIN
CLINTON
ST. LAWRENCE
ESSEX
JEFFERSON
LEWIS
HAMILTON
HERKIMER
WARREN
OSWEGO
ONEIDA
WASHINGTON
NIAGARA
ORLEANS
MONR.
WAYNE
ONONDAGA
FULTON
SARATOGA
ERIE
GENESEE
MONT.
ONTARIO
SCHEN.
WYOMING
LIVINGSTON
SENECA
MADISON
SCHOHARIE
ALBANY
RENSSELAER
YATES
CAYUGA
CHENANGO
OTSEGO
CORTLAND
GREENE
COLUMBIA
SCHUY.
TOMPKINS
DELAWARE
CHAUTAUQUA
CATTARAUGUS
ALLEGANY
STEUBEN
CHEM.
TIOGA
BROOME
SULLIV'N
ULSTER
DUTCHESS
ORANGE
PUTNAM
ROCK.
WESTCHES.
SUFFOLK
BX.
QUEENS
K.
R.

NEW YORK

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): oystershell scale

(SPECIFIC NAME):

HOST: beech, birch, maple and ash

PRESENT CONDITION:

AREA - TOTAL ACRES: ~~unknown~~ statewide

LOCATION: Fulton and Hamilton counties

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

4,700 acres moderate infestation
2,200 acres heavy infestation

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

increasing

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS: Oystershell scale has killed American beech in the Adirondacks in the 1970's.

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): spruce decline

(SPECIFIC NAME):

HOST: red and black spruces

PRESENT CONDITION:

AREA - TOTAL ACRES: 29,000

LOCATION: Adirondack region

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

variable

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS: Causal agents of spruce decline are eastern spruce beetle and eastern ~~dwarf~~ dwarf mistletoe.

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): red headed pine sawfly

(SPECIFIC NAME):

HOST: red pine

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: Fulton, Hamilton and Franklin Counties

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

357 acres ~~med~~ moderate
350 acres heavy

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

decreasing in all but Franklin County where it is increasing

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS:

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): European pine sawfly

(SPECIFIC NAME):

HOST: red, scotch and eastern white pines

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: Fulton, Hamilton and Franklin Counties

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

425 acres of moderate defoliation
55 acres of heavy defoliation

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

decreasing

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS:

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Larch Sawfly

(SPECIFIC NAME):

HOST: Tamarack

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: Fulton, Hamilton, Franklin

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

600 acres moderate defoliation
5 acres severe defoliation

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown, except in Franklin County were it is decreasing

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS:

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): balsam fir decline

(SPECIFIC NAME):

HOST: balsam fir

PRESENT CONDITION:

AREA - TOTAL ACRES: 258 acres

LOCATION: Lewis State Reforestation area, L#1 & L#11

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

Variable, but on a 4 acre stand, it is 90 percent.

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown.

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

Mortality rates has increased for all size classes of balsam fir.

CONTROL ~~PROJECTS~~ - METHOD, MATERIAL, ACRES, COST, RESULTS:

Lewis #11, stand A-31 has been marked for harvesting.

ADDITIONAL COMMENTS:

This decline is specific to the above areas and no causal agent has been identified.

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1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Balsam ~~woolly~~ ~~aphid~~ woolly adelgid

(SPECIFIC NAME): Adelges piceae

HOST: Balsam fir

PRESENT CONDITION:

AREA - TOTAL ACRES: ~~3,250,000~~ 47,000 acres

LOCATION: Adirondack Region

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:
moderate, 31 - 69%, 8,500 acres
heavy, 90+ %, 4,750 acres

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

size & infestation increasing

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

Infestation on Forest Preserve, which is protected under the State Constitution.

ADDITIONAL COMMENTS:

Infestations reported are widespread in the Adirondack Region and occur above 1000 feet elevation.

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Hemlock dieback

(SPECIFIC NAME):

HOST: Eastern hemlock

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: Fulton and Hamilton Counties

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

20 acres moderate dieback

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS:

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Norway Spruce Decline

(SPECIFIC NAME): cause unknown

HOST: Norway Spruce

PRESENT CONDITION:

AREA - TOTAL ACRES: 50 trees

LOCATION: Schenectady County

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

All 50 trees dead

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS: 50 trees died in a much larger stand. Death was rapid. There is no evidence of insect attacks or cankers. We have not seen this type of mortality before.

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1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): White spruce decline

(SPECIFIC NAME): Cause Unknown

HOST: white spruce

PRESENT CONDITION:

AREA - TOTAL ACRES: 6 acres

LOCATION: Schoharie County

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

Mortality or severe decline symptoms on 70 or more percent of the trees.

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

Unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

increasing

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS: Trees die from the tops downward. Trees felled had little radial growth over many years. We observed numerous bark beetles and a round headed and flatheaded landed on cut stump of the tree indicating their populations ~~was~~ were high.

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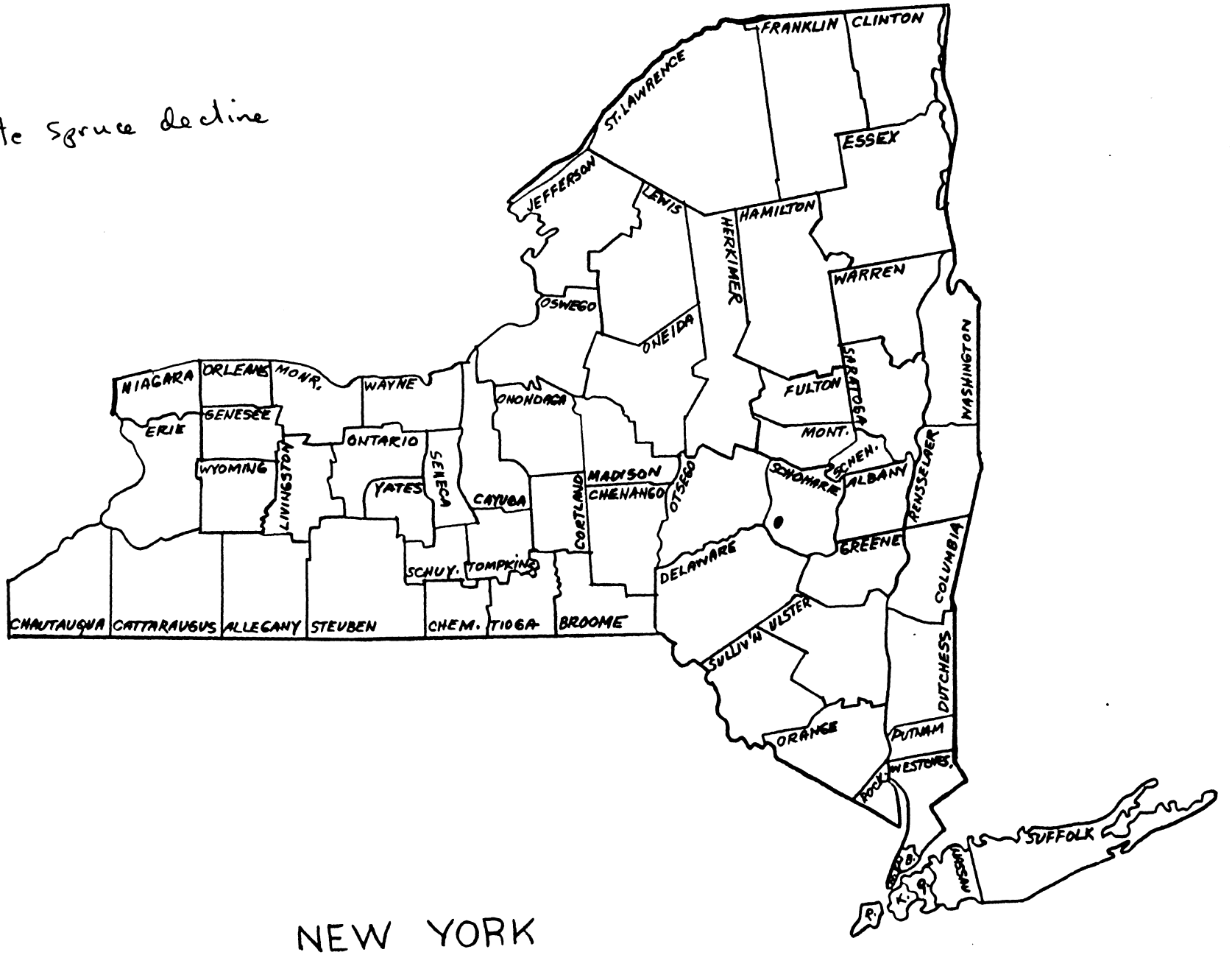
White Spruce decline



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1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Tamarack decline

(SPECIFIC NAME): Cause unknown

HOST: Tamarack

PRESENT CONDITION:

AREA - TOTAL ACRES: Unknown

LOCATION: Adirondack region, ~~with~~ a recent report for Lewis County

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

200 acres of moderate and 70 acres of heavy damaged tamarack stands reported for Lewis County.

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

Unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

It appears to be increasing throughout the Adirondacks.

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

None

ADDITIONAL COMMENTS: Tamarack decline has historically been associated with larch sawfly defoliation. Recent tamarack declines, for the most part, do not relate to defoliation. We are finding abundant larch beetles in dying trees.

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1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Yellow birch decline

(SPECIFIC NAME): cause unknown

HOST: yellow birch

PRESENT CONDITION:

AREA - TOTAL ACRES: 2,000 acres reported in 1987

LOCATION: Adirondacks, Hamilton County

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

between 31 to 69 percent of the trees declining.

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

It is believed to be declining in severity.

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

None

ADDITIONAL COMMENTS: Yellow birch decline is long-term and appears to be cyclical. We have observed increases in birch decline following periods of dry weather and, the decline symptoms ~~appear~~ are most severe in over-mature trees.

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1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Maple decline

(SPECIFIC NAME): Unknown cause

HOST: red and sugar maples

PRESENT CONDITION:

AREA - TOTAL ACRES: Unknown

LOCATION: statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

Unknown

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown statewide, but in localized areas, foresters report increases.

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

Timely salvage of dying trees.

ADDITIONAL COMMENTS: We have reports of maple declines in sugarbushes and forests that appear not to be associated with defoliation, salt injury or wet soils.

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1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Japanese black pine decline

(SPECIFIC NAME):

HOST: Japanese black pine

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: Suffolk and Nassau Counties

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

Mortality in standing trees of 10 to 30 percent.

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

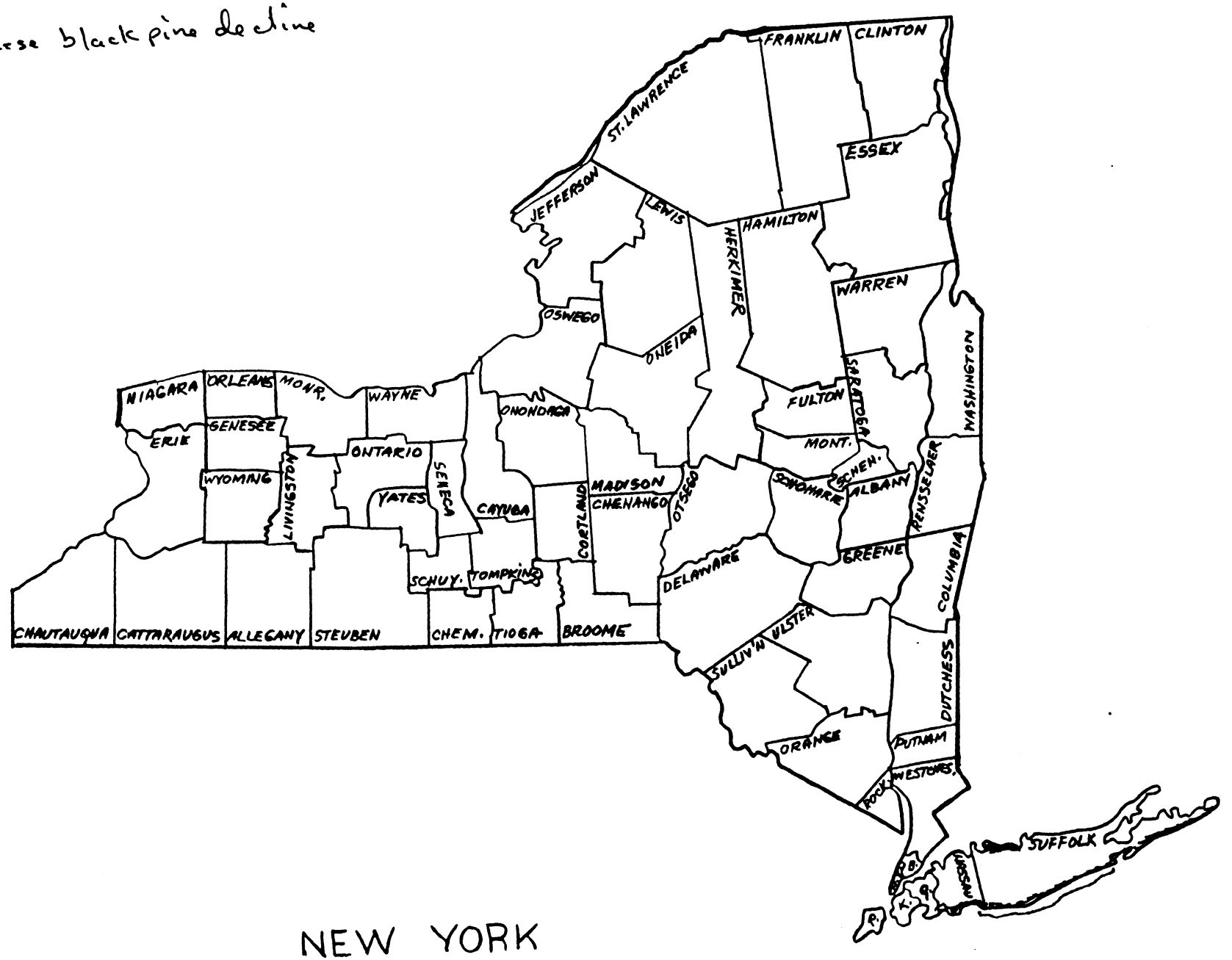
increasing.

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

None

ADDITIONAL COMMENTS: Causes of the decline of Japanese black pine are the pinewoods nematode, blue-stain fungus and the black turpinetaie beetle. Trees injected or infested by the above organisms die within one season. Mortality of pines in the past two years at Orient State Park exceed 60 percent.

Japanese black pine decline



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1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Red pine scale

(SPECIFIC NAME):

HOST: red pine

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: southeastern, New York

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

infested trees die within 5 years.

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

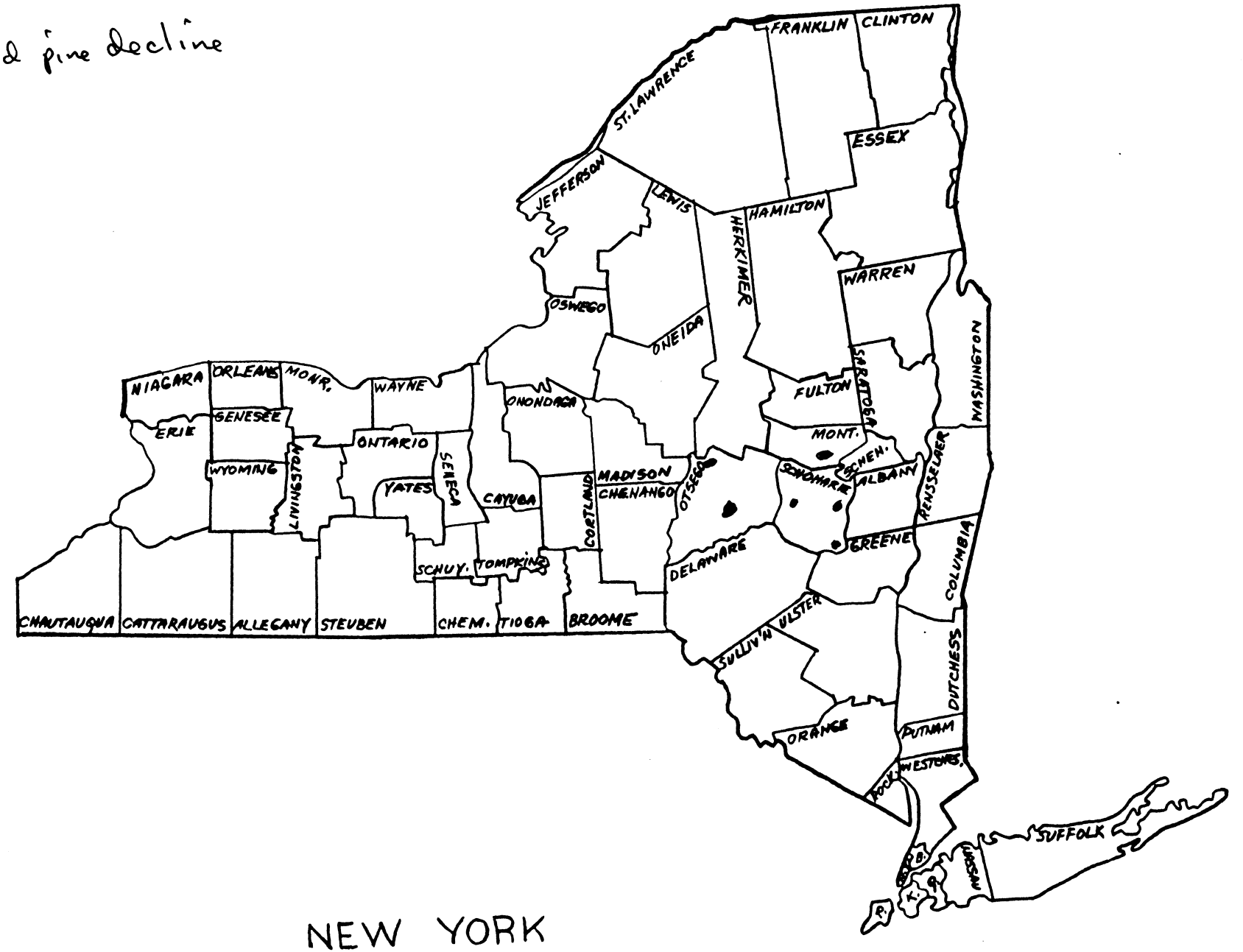
it is increasing its range northward at about 2 miles annually.

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS: Red pine scale was detected for the first time near the Harriman Exit of the NYS Thruway. This is the only known infestation in New York on the west side of the Hudson River. The scale was also discovered for the first time in the town of Stanford, Dutchess County, which is the most northwestern location of the insect.

red pine decline



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1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Hemlock adelgid

(SPECIFIC NAME):

HOST: eastern hemlock

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: Westchester County

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

Tree mortality occurring

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

increasing

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

non

ADDITIONAL COMMENTS:

The hemlock adelgid and spider mites are damaging hemlocks used as ornamental trees in Westchester County.

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1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Fomes root rot

(SPECIFIC NAME):

HOST: Red and white pines

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: Fulton and Hamilton Counties

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

50 acres moderate ~~infestation~~ infection

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

Unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

increase

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS: Two new infection centers found.

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1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): pear thrips

(SPECIFIC NAME):

HOST: primarily sugar maple

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

variable

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

stable to decreasing

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

non

ADDITIONAL COMMENTS: 1985 was the peak year for foliage damage by the pear thrips. We received reports of thrips damage in Albany, Greene, Columbia, Rensselaer, Otsego, Schoharie, Ulster, Sullivan, Orange, Rockland, Putnam, Dutchess, Westchester Counties

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): maple leaf cutter

(SPECIFIC NAME):

HOST: sugar maple

PRESENT CONDITION:

AREA - TOTAL ACRES: Unknown

LOCATION: Delaware County

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

less than 30 % foliage damage

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

non

ADDITIONAL COMMENTS: Maple leaf cutter is very destructive. pest of maple and, in particular, to sugarbushes. Populations in New York of maple leaf cutter are at a low level ~~and are~~ following epidemic levels in the early 1980's.

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Cottony Maple Scale

(SPECIFIC NAME):

HOST: Silver maple

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: City of Schenectady

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

unknown

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown

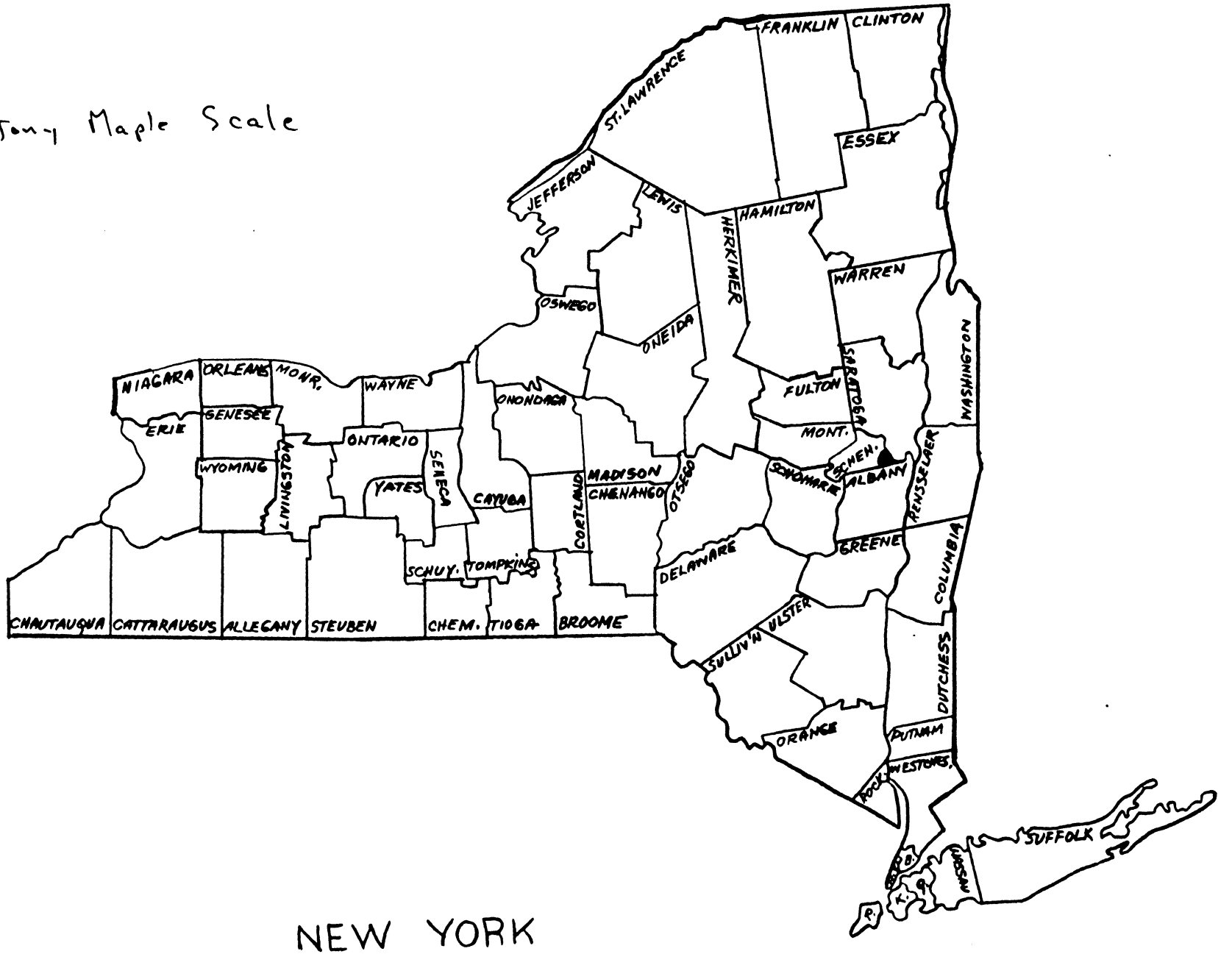
CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

None

ADDITIONAL COMMENTS: This insect was more ~~xxx~~ numerous this year than any other year on record.

~~The County~~

Cottony Maple Scale



NEW YORK

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): decline of maple and ash

(SPECIFIC NAME): Caused by flooding

HOST: all species of maple and ash

PRESENT CONDITION:

AREA - TOTAL ACRES: Unknown

LOCATION: ~~north~~ western New York

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

Trees with inundated roots for prolonged periods die

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

Unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

Increasing.

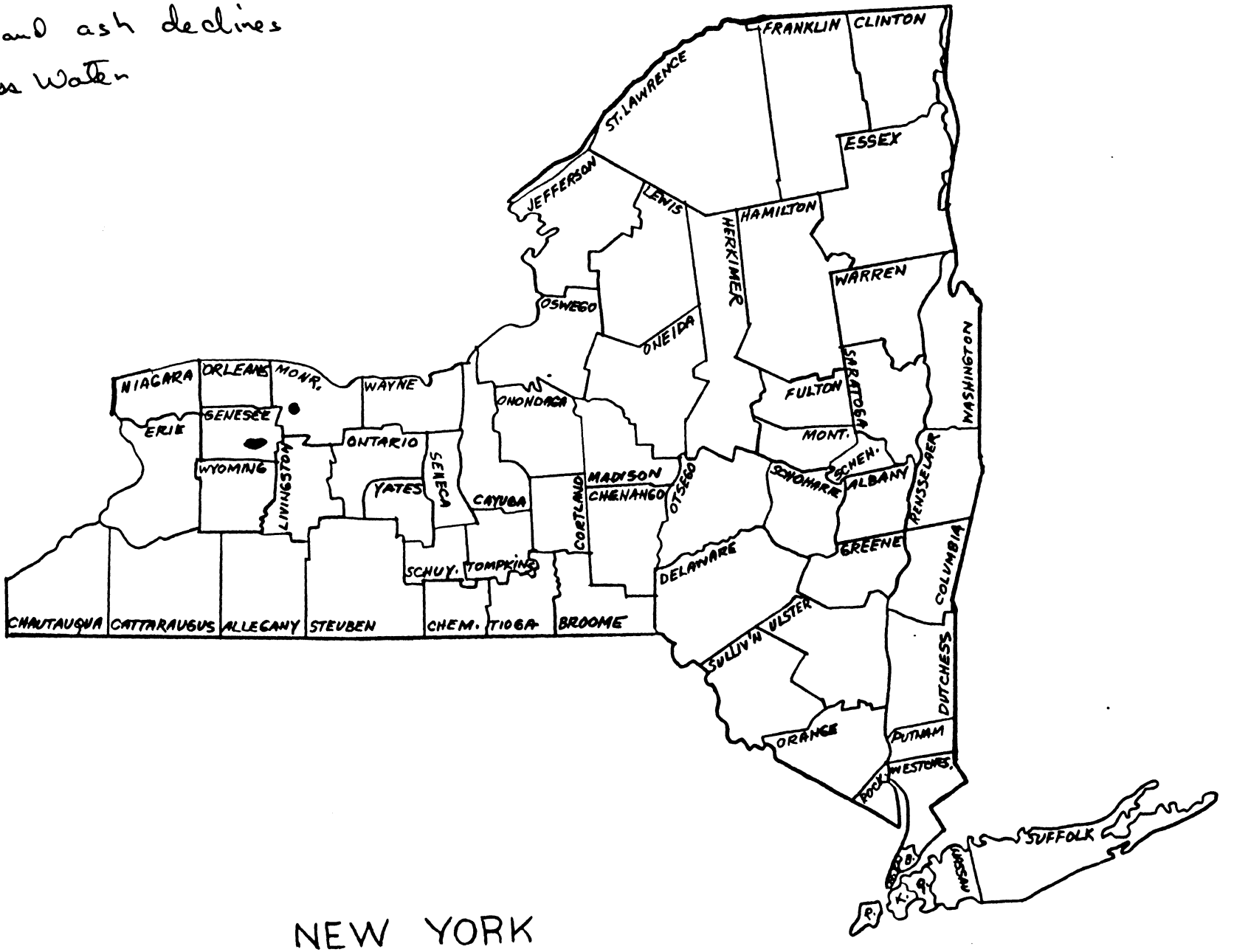
CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

None

ADDITIONAL COMMENTS: In recent years, the water levels have risen in northwestern New York. As a consequence, flooding has occurred of floodplain forests, which are largely maple and ash.

NY

Maple and ash declines
Excess Water



NEW YORK

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): red pine decline

(SPECIFIC NAME):

HOST: red pine

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: southern, New York

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

unknown

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

increasing

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

We are salvaging red pine on state forests

ADDITIONAL COMMENTS: Red pine when it reaches 50 years old on heavy soils ~~declines~~ shows visuable signs of decline. Radial growth slowed by age 35. Tops of declining trees die following attacks by roundheaded borers and the introduction of blue-stain. Since red pine was largely planted in the 1930's and is now in the 50 year class and there are large acreages of red pine in southern New York the damage from the decline ~~will~~ is expected to be severe.

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): pine false webworm

(SPECIFIC NAME):

HOST: red, white and scotch pines

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: Schoharie, St. Lawrence

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

variable 1. 135 acres moderate, St. Lawrence
2. 1600 acres heavy, St. Lawrence

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

Increasing

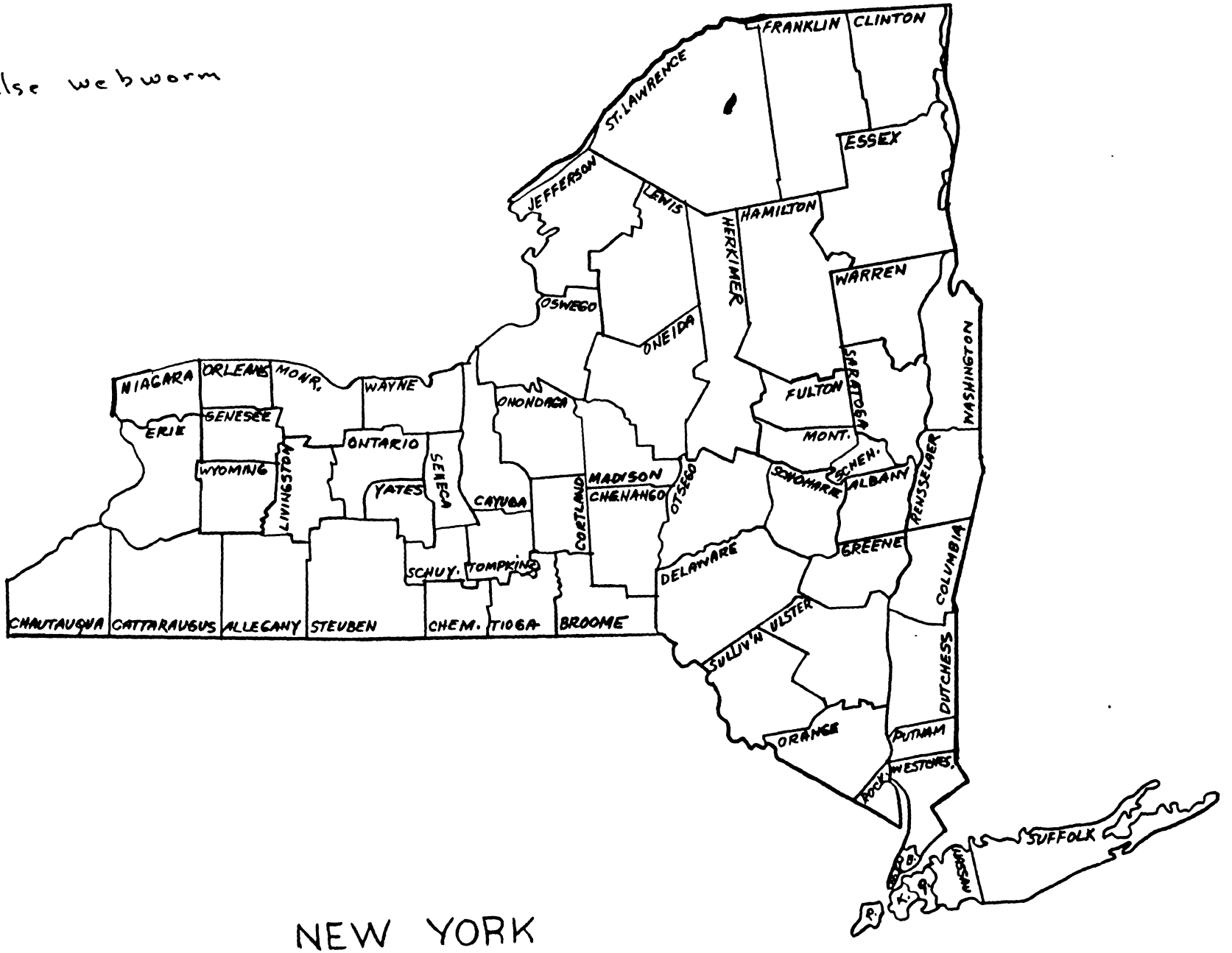
CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

None

ADDITIONAL COMMENTS: This insect is an annual problem by defoliating host trees and extending its range. Some forest stands have been defoliated for five consecutive years. Mortality of infested stands is increasing.

NY

Pine false webworm



NEW YORK

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Chestnut blight

(SPECIFIC NAME):

HOST: american chestnut

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

Kills most chestnut trees before nut bearing age

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

More trees observed to be flowering and producing nuts

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

None

ADDITIONAL COMMENTS: American chestnut remains a common species on dry, southern New York sites. Chestnut blight is the most important disease of trees in New York.

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): beech bark disease

(SPECIFIC NAME):

HOST: american beech

PRESENT CONDITION:

AREA - TOTAL ACRES: Unknown

LOCATION: Statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

Tree mortality following nectria infections occurs in all counties of New York.

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

in western New York, the disease is increasing in severity.

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

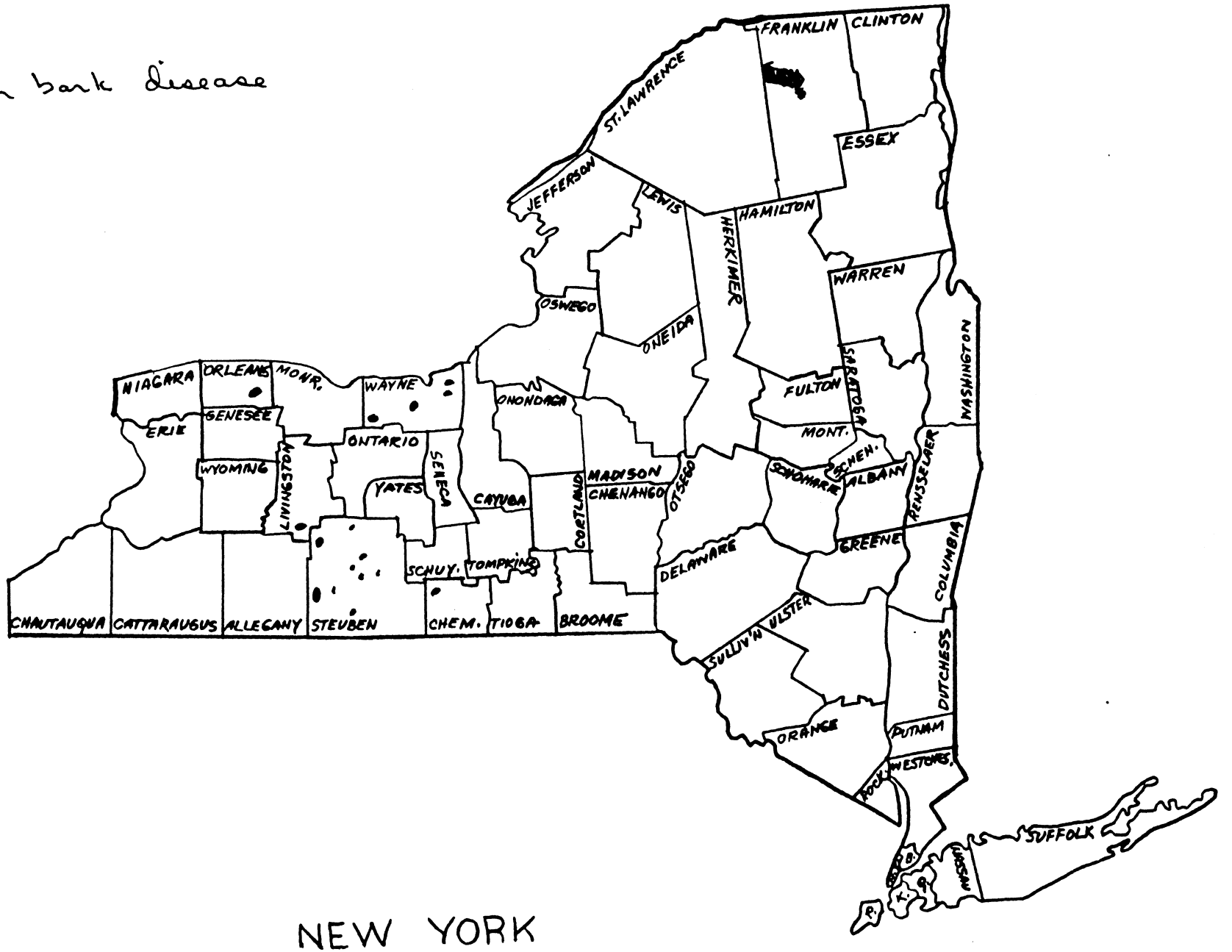
Department foresters mark merchantable beech for cutting in anticipation of mortality from beech bark disease

ADDITIONAL COMMENTS:

Beech bark disease is killing beech in Erie County, the last county in the state were the scale and nectria were found. In terms of volumn of trees killed, beech bark disease is the second most important tree disease in New York and only surpassed by chestnut blight in the early 1900's.

NY

Beech bark disease



NEW YORK

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Ash Yellows

(SPECIFIC NAME):

HOST: white ash

PRESENT CONDITION:

AREA - TOTAL ACRES: Unknown

LOCATION: statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

variable, but over a period of 25 years, most forest stands lose a substantial number of ash to the disease.

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

stable at a ~~high~~ severe level

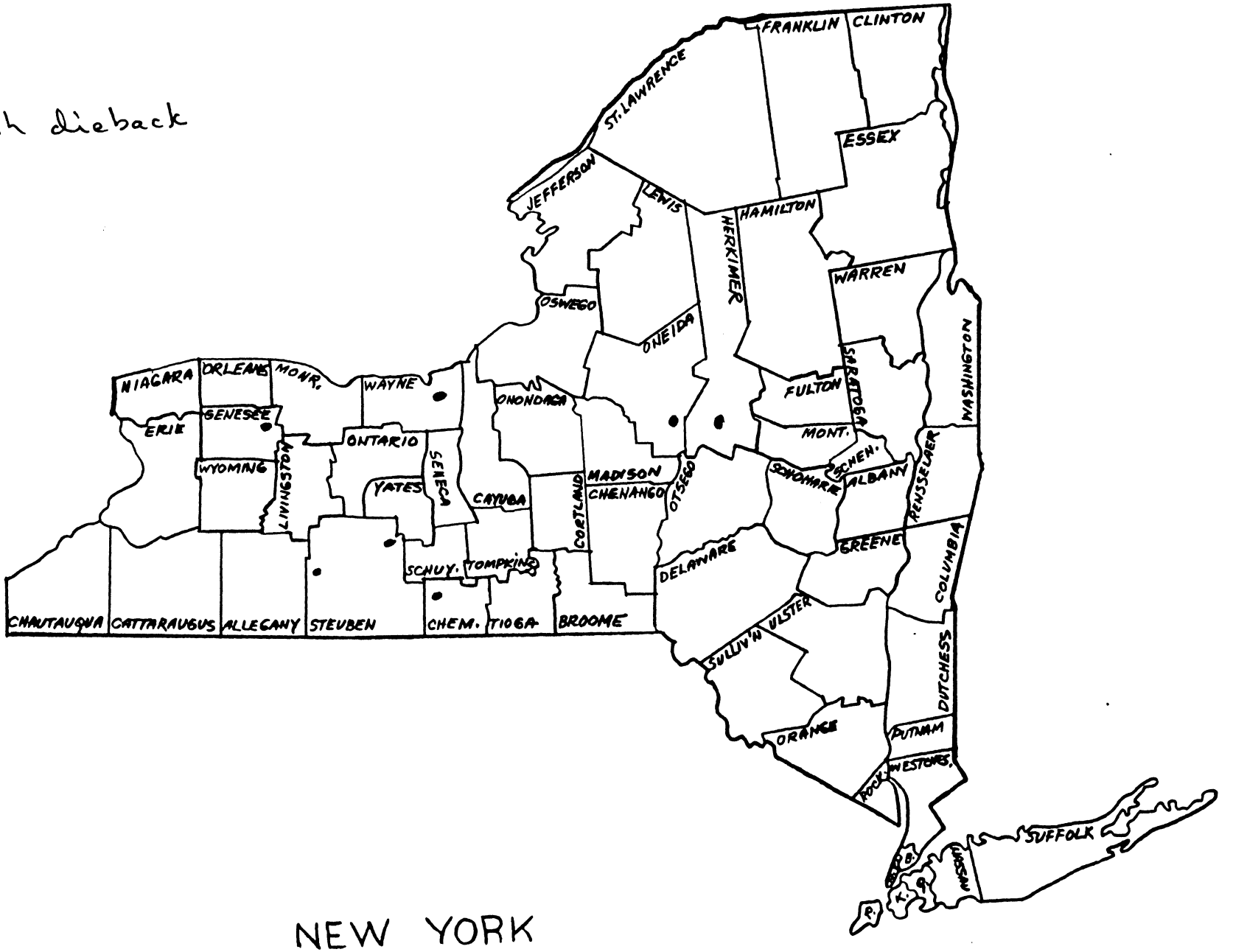
CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

Department foresters recommend salvage when early symptoms of ash yellows disease are observed.

ADDITIONAL COMMENTS:

Ash yellows disease, formerly known as ash dieback, is second to beech bark disease in the volumn of trees killed in recent years. It is not uncommon for one third of the standing ash to be dead and another third of the ash in a stand to show symptoms of ash yellows.

Ash dieback



NEW YORK

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): oak decline

(SPECIFIC NAME):

HOST: all oaks

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

variable

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

Oak decline follows closely the heavy defoliations by gypsy moth.

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

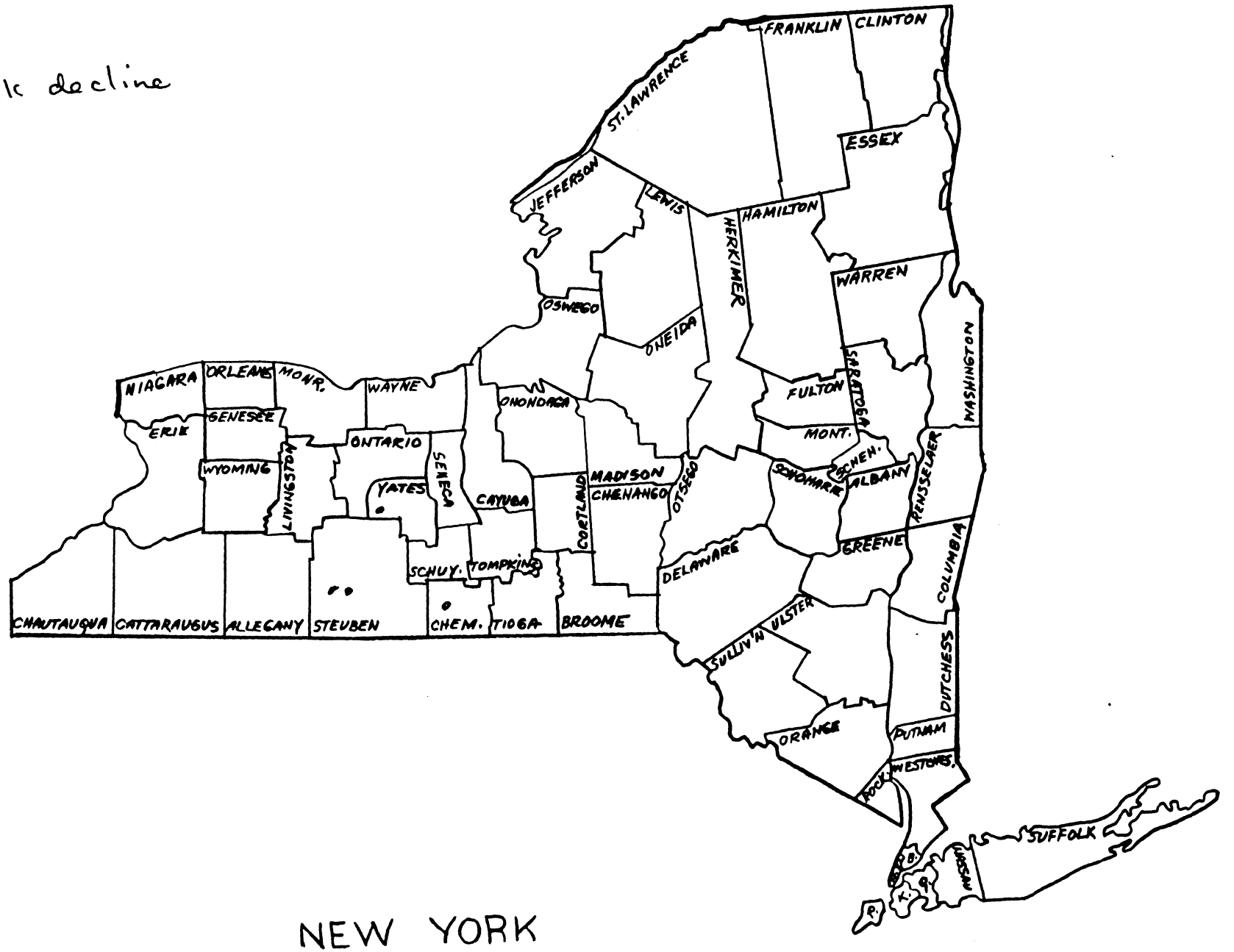
In 1987, at least 25,000 acres of forests were sprayed to control gypsy moths; foresters recommend prompt salvage of oaks that were severely defoliated and show early symptoms of decline.

ADDITIONAL COMMENTS:

Oak decline is currently occurring in areas of the Finger Lakes Region and western New York where gypsy moths have severely defoliated oak forest stands. Three geographic areas were gypsy moth damaged trees in 1987 are southeastern New York, north of New York City and west of the Hudson River and Finger Lakes, lake in the St. Lawrence River and Western, New York

NY

Oak decline



NEW YORK

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Dutch elm disease

(SPECIFIC NAME):

HOST: all native elms

PRESENT CONDITION:

AREA - TOTAL ACRES: Unknown

LOCATION: statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

Most elms are killed by Dutch elm disease before they reach 10 inches in trunk diameter.

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

Unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

Increase in Dutch elm diseased killed ~~losses~~ trees in Western New York

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

None

ADDITIONAL COMMENTS:

We have noticed that large populations of elms that have grown up following the initial die off of elms due to Dutch elm disease are currently being killed by that disease. Mortality of elms is very high in western New York.

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Sugar maple borer

(SPECIFIC NAME):

HOST: sugar maple

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

unknown

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown

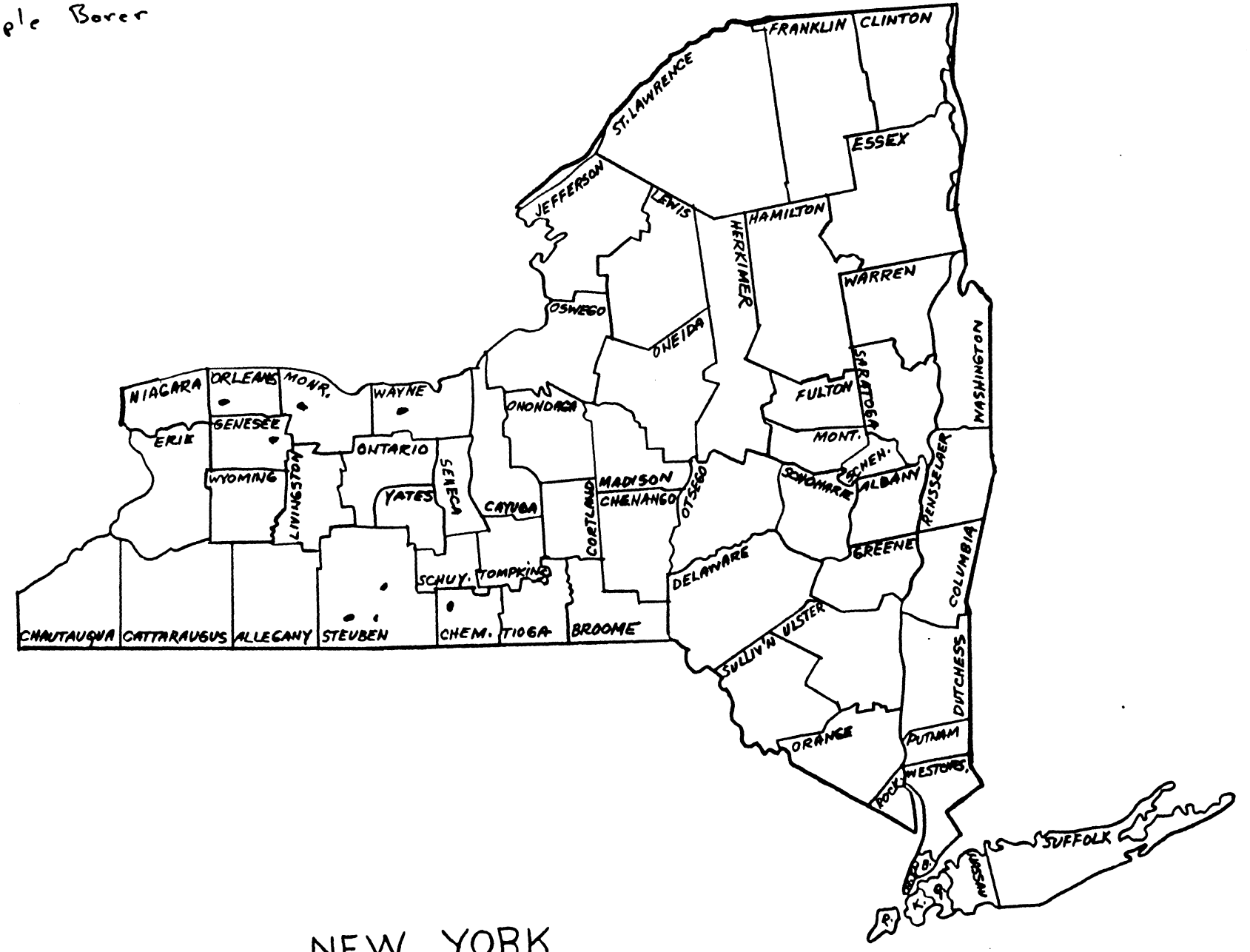
CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS: Moderately damaged sugar maple stands were reported in Steuben, Orleans, Monroe, Genesee, ~~and~~ Chemung and Wayne Counties. This borer is very destructive, for many maples are attacked repeatly, year after year. Also, sugar maple is our second most common tree species and since the borer is widely distributed, damage is great.

NY

Sugar Maple Borer



NEW YORK

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Aphids

(SPECIFIC NAME):

HOST: sugar maple, beech

PRESENT CONDITION:

AREA - TOTAL ACRES: unknown

LOCATION: statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

unknown

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

none

ADDITIONAL COMMENTS: Very high populations of great tree aphids found in south eastern New York.

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): White pine blister rust

(SPECIFIC NAME):

HOST: Eastern white pine

PRESENT CONDITION:

AREA - TOTAL ACRES: Unknown

LOCATION: Statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES:

variable

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

non

ADDITIONAL COMMENTS: This disease reported as light to moderate in Albany, Greene and Schenectady Counties.

NY

1987 PEST CONDITIONS REPORT WORK SHEET

PEST - (COMMON NAME): Black Knot

(SPECIFIC NAME): Apiosporina morbosa

HOST: Black cherry

PRESENT CONDITION:

AREA - TOTAL ACRES: .6 million acres (forest type)

LOCATION: statewide

SEVERITY - INCLUDE ACRES OF MODERATE AND HEAVY DEFOLIATION OR INFECTION; DEFINE CLASSES: ~~270 acres~~ Moderate between 31 - 69%
Heavy at 70 to 100%
see section: additional comments

LOSSES - INCLUDE AREAS OF TREE MORTALITY; ALSO VOLUME AND/OR $ ESTIMATES:

unknown

TREND - CHANGES IN INCIDENCE AND SEVERITY OVER THE PAST FEW YEARS AND EXPECTATIONS FOR NEXT YEAR:

unknown

CONTROL PROJECTS - METHOD, MATERIAL, ACRES, COST, RESULTS:

Recommend utilization of wood and encourage other species with better growth forms.

ADDITIONAL COMMENTS:

Black knot disease is underestimated in its effect on cherry. In some forest stands, repeated infections cause the trees to ~~loss~~ lose out in competition with other species. Many cherry are so badly deformed from black knot that they have no timber value and can only be used for firewood.

~~Tract #11~~ 270 acres, ~~moderate~~ heavy infections, ~~State~~ and 575 acres of moderate infections on State